Mr. Robert Brandstatter 2403 South County Road 150 East Logansport, IN 46947

Re: **017-13991-03118** 

Third Significant Permit Revision to

FESOP 017-7088-03118

Dear Mr. Brandstatter:

Central Paving, Inc. was issued a permit on July 10, 1997 for a batch hot mix asphalt plant. A letter requesting changes to this permit was received on February 28, 2001. Pursuant to the provisions of 326 IAC 2-8-11.1 a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the replacement of the existing drying/mixing operation 59.45 MMBtu/hr dryer burner with a 70 MMBtu/hr dryer burner and the replacement of the drying/mixing operation existing venturi scrubber with a baghouse.

The following construction conditions are applicable to the proposed project:

#### 1. General Construction Conditions

The data and information supplied with the application shall be considered part of this source modification approval. Prior to <u>any</u> proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

- 2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
- 3. <u>Effective Date of the Permit</u> Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
- 4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
- 5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

Page 2 of 2 F017-13991-03118

Central Paving, Inc. Logansport, Indiana Permit Reviewer: SDF

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Scott Fulton, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Scott Fulton or extension (3-5691), or dial (317) 233-5691.

Sincerely,

Paul Dubenetzky, Chief Permits Branch Office of Air Quality

Attachments SDF

cc: File - Cass County

U.S. EPA, Region V

Cass County Health Department

Air Compliance Section Inspector - Ryan Hillman

Compliance Data Section - Karen Nowak

Administrative and Development - Janet Mobley Technical Support and Modeling - Michele Boner

# FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

### Central Paving, Inc. 2403 S. County Road 150 E. Logansport, Indiana 46947

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

| Operation Permit No.: F017-7088-03118   | Date Issued: July 10, 1997                           |  |
|---|--|--|
|   |  |  |
| First Significant Permit Revision No.: F017-9742-03118  | Date Issued: July 17, 1998                           |  |
|   |  |  |
| Second Significant Permit revision No.: F017-13667-03118  | Date Issued: March 15, 2001                          |  |
|   |  |  |
| Third Significant Permit Revision No.: F017-13991-03118   | Affected Pages: 4, 21, 22, 23, with page 24 deleted. |  |
| Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality | Issuance Date: November 29, 2001                     |  |

#### Page 4 of 28 F017-7088-03118

#### SECTION A SOURCE SUMMARY

#### A.1 General Information

The Permittee owns and operates a stationary batch mix hot asphalt plant

Responsible Official: Robert Brandstatter

Source Address: 2403 S. County Road 150 E., Logansport, Indiana 46947

Mailing Address: P. O. Box 357, Logansport, Indiana 46947

SIC Code: 2951

County Location: Cass County

County Status: Unclassified or attainment for all criteria pollutants

Source Status: Minor Source, FESOP Program Minor Source, PSD Program

#### A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

- (a) one (1) asphalt dryer capable of processing 150 tons per hour of raw material, equipped with one (1) natural gas fired 70 million British thermal units per hour burner;
- (b) one (1) set of three (3) vibrating screens for classifying dried aggregate;
- (c) one (1) mixer for mixing classified aggregate and liquid asphalt;
- (d) one (1) baghouse for controlling particulate matter (PM) emissions from the dryer and mixer, exhausting at one (1) stack (ID No. SV1);
- (e) one (1) aggregate conveyor with a maximum capacity of 150 tons per hour; and
- (f) production of stockpile mix (cold mix) asphalt.

#### A.3 <u>Insignificant Activities</u>

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) one (1) natural gas fired hot oil heater, with a maximum rated capacity of 2.115 million British thermal units per hour;
- (b) four (4) hopper bottom aggregate storage bins, each with a capacity of 20 tons;
- (c) three (3) 10,000 gallon liquid asphalt storage tanks;
- (d) unpaved roads with public access; and
- (e) five (5) aggregate storage piles with a total storage capacity of 10,000 tons.

#### A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

#### A.5 Prior Permit Conditions Superseded [326 IAC 2]

This permit supersedes the conditions of all construction and operating permits issued under 326 IAC 2 prior to the effective date of this permit.

#### SECTION D.1 FACILITY OPERATION CONDITIONS

- one (1) asphalt dryer capable of processing 150 tons per hour of raw material, equipped with one (1) natural gas fired 70 million British thermal units per hour burner;
- (b) one (1) set of three (3) vibrating screens for classifying dried aggregate;
- (c) one (1) mixer for mixing classified aggregate and liquid asphalt;
- one (1) baghouse for controlling particulate matter (PM) emissions from the dryer and mixer, exhausting at one (1) stack (ID No. SV1);
- (e) one (1) aggregate conveyor with a maximum capacity of 150 tons per hour, and
- (f) production of stockpile mix (cold mix) asphalt.

#### D.1.1 Particulate Matter Emissions

(a) PM:

The particulate matter (PM) emissions shall be limited as follows:

- (i) Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter emissions from the aggregate drying operation shall not exceed 8.2 pounds per hour.
- (ii) Pursuant to 40 CFR 60, Subpart I, Section 60.92, on and after the date on which the performance test required to be conducted by 60.8 is completed, the owner or operator shall not discharge into the atmosphere from the dryer/mixer, particulate matter containing in excess of 0.04 gr/dscf (0.02 lb PM/hr) or emissions that exhibit equal to or greater than 20% opacity.

#### (b) PM-10:

Pursuant to 326 IAC 2-8-4, emissions of particulate matter with diameter less an 10 microns (PM-10) from the aggregate mixing and drying operation shall not exceed 17.4 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

#### D.1.2 Volatile Organic Compound (VOC)

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), the use of cutback asphalt or asphalt emulsion shall not contain more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

- (a) Penetrating Prime Coating
- (b) Stockpile Storage
- (c) Application during the months of November, December, January, February and March.

#### D.1.3 Cold-Mix (Stockpile Mix) Asphalt Usage

The VOC emissions from the production of cold mix (stockpile mix) asphalt shall be limited to 90.57 tons per twelve (12) consecutive Month period, rolled on a monthly basis. This is equivalent to 60,990 tons of cold mix (stockpile mix) asphalt per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) will not apply.

## Page 22 of 28 F017-7088-03118

#### Testing Requirements [326 IAC 2-8-4(3)]

#### D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

During the period between 36 and 42 months after issuance of this permit, in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, or existing test results, as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

#### Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

#### D.1.5 Daily Visible Emission Notations

Daily visible emission notations of the conveying, transferring, screening, aggregate storage piles, unpaved roads, and the mixing and drying operation stack exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

#### D.1.6 Pressure Drop Readings

The Permittee shall take readings of the total static pressure drop across the baghouse controlling the mixing and drying operation, at least once a day when the mixing and drying process is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Condition C.12 - Pressure Gauge Specifications, be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.1.7 Preventive Maintenance [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this source.

#### Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

#### D.1.8 Operational Parameters

The Permittee shall maintain a daily record for the baghouse controlling particulate matter emissions from asphalt mixing and aggregate drying operations of the following values:

(a) Inlet and outlet differential static pressure;

- (b) Visible observations;
- (c) Checklist with dates and initials for each preventive action performed; and
- (d) Records of corrective actions.

#### D.1.9 Record Keeping Requirements

The Permittee shall maintain records at the source of the amount of cold-mix (stockpile mix) asphalt concrete produced each month. The records shall be complete and sufficient to establish compliance with the Volatile Organic Compound (VOC) usage limit established in Condition D.1.3 of this permit. The records shall contain a minimum of the following:

- (a) Cold-mix (stockpile mix) asphalt produced in current month;
- (b) Cold-mix (stockpile mix) asphalt produced last twelve (12) months;
- (c) Type of asphalt used; and
- (d) Percent fuel oil in asphalt.

The records shall be maintained for a minimum of 36 months and made available upon request of the Office of Air Quality (OAQ).

#### D.1.10 Quarterly Reporting

A quarterly summary to document compliance with operation condition number D.1.3 shall be submitted, to the address listed in Section C.18 - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported.

#### Third Significant Permit Revision 017-13991-03118 Revised By: SDF

Page 24 of 28 F017-7088-03118

This page was deleted.

Page 25 of 28 F017-7088-03118

### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT **OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION**

### FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) **CERTIFICATION**

Central Paving, Inc. Source Name:

|                    | rce Address:<br>OP No.:                                  | 2403 S. County Road 150 E., Logansport, Indiana 46947<br>F017-7088-03118   |
|--------------------|--|--|
|                    | This certifica   | ation shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.   |
|                    | Please check   | what document is being certified:  |
| 9                  | Deviation Oc   | currence Reporting Form (For Control Equipment Monitoring)   |
| 9                  | Deviation Oc   | currence Reporting Form (For Material Usage, Quality, Etc.)  |
| 9                  | Test Result (  | specify)   |
| 9                  | Report (spec   | ify)   |
| 9                  | Notification (   | specify)   |
| 9                  | Other (specify   |  |
|                    |  |  |
| or s<br>and<br>sys | supervision in a<br>d evaluate the i<br>stem, or those p | nalty of law that this document and all attachments were prepared under my direction accordance with a system designed to assure that qualified personnel properly gather information submitted. Based on my inquiry of the person or persons who manage the persons directly responsible for gathering the information, the information submitted is, knowledge and belief, true, accurate, and complete. |
| Sig                | ınature:   |  |
| Pri                | nted Name:   |  |
| Titl               | e/Position:  |  |
| Da                 | to:  |  |

Page 26 of 28 F017-7088-03118

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

## FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) DEVIATION OCCURRENCE REPORT

(For Control Equipment Monitoring Only)

Source Name: Central Paving, Inc.

Source Address: 2403 S. County Road 150 E., Logansport, Indiana 46947

FESOP No.: F017-7088-03118

A separate copy of this report must be submitted for **each** monitoring device on all control equipment listed in this permit. Attach a signed certification to complete this report.

|      | listed in this pe  | milit. Attach a signed certification to complete this report.  |  |  |
|------|--|--|--|--|
| Stac | k/Vent ID:   |  |  |  |
|      | rol Equipment:<br>nermal oxidizer, scrubber, bagho   | uses)  |  |  |
|      | e of Parameter Monitored:<br>emperature, pressure drop, effici   |  |  |  |
| 9 C  | ontinuously  | 9 Periodically, at a frequency of:   |  |  |
|      | meter Operating Restricti<br>,400°F, 2-4 psi pressure drop)  | ons/Range:   |  |  |
|      | ort Covers From:<br>month, day, year)  | То:  |  |  |
| 9    |  | arameter Restriction/Range Occurred During the Monitoring Period. aintained at the Facility Verify Compliance with this Condition. |  |  |
| 9    | Summary of Deviations from the Parameter Restriction/Range During the Monitoring Period are Identified Below. Complete Records Maintained at the Facility. |  |  |  |
|      |  |  |  |  |

|   | For Parameter Recorded Continuously | For Parameter Recorded Periodically |
|---|-------------------------------------|-------------------------------------|
| Total Unit Operating Time                           |                                     |                                     |
| Total Time of Deviations (Identify All Deviations)  |                                     |                                     |
| Percent of Time Indicating Deviations ([2]/[1]x100) |                                     |                                     |

| Date of Deviation | Start/Stop Time of Deviation (Continuous Monitoring Only) | Actual Value<br>Recorded | Reason for Deviation & Corrective Action Taken |
|-------------------|---|--------------------------|--|
|                   |   |                          |  |
|                   |   |                          |  |
|                   |   |                          |  |

Page 27 of 28 F017-7088-03118

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

## FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) DEVIATION OCCURRENCE REPORT

Source Name: Central Paving, Inc.

Source Address: 2403 S. County Road 150 E., Logansport, Indiana 46947

FESOP No.: F017-7088-03118

A separate copy of this report must be submitted for **each** material type, quantity usage and operation limitation (except control equipment monitoring) listed in this permit.

Attach a signed certification to complete this report.

| Stack/Vent ID:   |
|--|
| Equipment/Operation:   |
| Parameter Subject to Material Type, Quantity Usage or Operation Limitations Specified in the Permit: (ex: 2500 pounds per day, 300 hours per year, 5000 gallons per month) |
| Determination Period for this Parameter: (ex: 365-day rolling sum, fixed monthly rate)   |
| 9 Permit Has No Rate Limitations for this Parameter.   |
| Content Restriction for this Parameter: (ex: maximum of 40 percent VOC in inks, 0.5 percent sulfur content)  |
| Demonstration Method for this Parameter: (ex: MSDS, Supplier, material sampling & analysis)  |
| 9 Permit Has No Content Limitations for this Parameter.  |
| Comments:  |

Page 28 of 28 F017-7088-03118

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

|   |  | FESOP Quarterly I  | Report                                     |  |  |  |  |
|---|--|--|--|--|--|--|--|
| Source Name:<br>Source Address:<br>FESOP No.:<br>Facility:<br>Parameter:<br>Limits: | Iress: 2403 S. County Road 150 E., Logansport, Indiana 46947 Entry F017-7088-03118 Stockpile mix (Cold mix) production |  |  |  |  |  |  |
|   | Month:   | Year:  |  |  |  |  |  |
|   | Month  | Tons Stockpile Mix produced this month   | Tons Stockpile Mix produced past 12 months |  |  |  |  |
|   |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |
|   | 9 Deviati  | riation occurred in this month on/s occurred in this month. on has been reported on: | ı.   |  |  |  |  |
|   | Submitted<br>Title/Positi  | by:  |  |  |  |  |  |

Signature: Date:

# Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Federally Enforceable State Operating Permit

**Source Name:** Central Paving, Inc.

Source Location: 2403 S. County Rd. 150 E., Logansport, Indiana 46947

County: Cass SIC Code: 2951

Operation Permit No.: F 017-7088-03118
Operation Permit Issuance Date: July 10, 1997
Significant Permit Revision No.: F 017-13991-03118

Permit Reviewer: SDF

On April 25, 2001, the Office of Air Quality (OAQ) had a notice published in the Pharos Tribune in Logansport, Indiana, stating that Central Paving, Inc. had applied for a construction permit to construct and operate a stationary batch mix hot asphalt plant. The notice also stated that OAQ proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On June 6, 2001, Central Paving, Inc. submitted comments on the proposed construction permit. The summary of the comments and corresponding responses is as follows:

#### 1. Comment 1:

Permit Level / NSPS Applicability. Central Paving does not desire to increase their potential emissions, and are willing to accept a limit on fuel usage which would, in effect, limit the new burner to the same annual emissions allowed for the original burner. Based on 1,000 BTU/cf of natural gas, the limit would be a 12 month rolling average of 520.78 million cubic feet of gas. By doing so, there would be no increase in potential emissions, and therefore no need of a significant permit revision and 40 CFR 60, Subpart I would not apply.

Central Paving therefore requests that the Office of Air Quality adjust the permit level to reflect that there will be no increase in emissions and that since there will be no increase in PTE, that the OAQ remove all of the NSPS requirements.

#### Response 1:

#### **Significant Permit Revision Applicability:**

The level of permit is determined based on the unrestricted potential to emit of the new proposed dryer burner. For the replacement of the dryer burner, the unrestricted potential to emit is determined based on the new burner capacity of 70 MMBtu/hr, emissions before controls, natural gas combustion, emission factors obtained from EPA AP-42, and 8,760 hours of operation.

Based on these parameters, the oxides of nitrogen (NOx) unrestricted potential to emit is estimated to be 31.00 tons per year which exceeds the 326 IAC 2-8-11.1(f)(1)(E) significant permit revision level of 25 tons per year.

Central Paving has proposed a production limit to reduce the PTE to below the applicable significant permit revision levels. However, applied limitations cannot be utilized to reduce the level of this proposed modification because imposing such a limitation requires the limit to be federally enforceable. To be federally enforceable, the proposed limit must be public noticed.

The next lowest level of permit is a minor permit revision. Since public noticing is not required of minor permit revisions, any limit required in the permit would not be federally enforceable. Thus, no limits shall be established to lower emission level such that there are no increases in emissions. The proposed change is therefore determined to be a modification and the level of permit, a significant permit revision.

Thus, no changes to the permit level shall be made.

#### **New Source Performance Standard (NSPS) Applicability:**

Upon review of the 40 CFR 60, Subpart I applicability Sections and the definitions of a modification under the NSPS (40 CFR 60.2 and 60.14), it is determined that 40 CFR 60, Subpart I, applies because the proposed change is determined to be a modification under NSPS and the criteria for 40 CFR 60, Subpart I applicability are met.

1. The Proposed Change is a Modification Under NSPS:

The proposed change is determined to be a modification because the proposed change is not construction or reconstruction, is not an exemption under 60.14(e), and there is no limit that can be established that can limit the change from being a modification for the purposes of the NSPS.

a. The proposed change is a modification, not construction or reconstruction.

Pursuant to 40 CFR 60, Subpart A, Section 60.2, construction is defined as fabrication, erection, or installation of an affected facility. Since the proposed change is the replacement of the burner, ("part" of an affected facility), the proposed change is determined not to be construction.

Pursuant to 40 CFR 60, Subpart A, Section 60.15(b), reconstruction is defined as the replacement of components of an existing facility to the extent that the fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new facility, and it is technologically feasible to meet the applicable standards set forth in Part 60. Since the cost of the proposed burner is 38% of the cost of an entirely new dryer which is less than the applicable value of 50%, the proposed change is determined not to be reconstruction.

The proposed change is therefore determined to be a modification pursuant to 40 CFR 60, Subpart A, Sections 60.2 and 60.14, which states that a modification is "any physical change in or change in the method of operation of an existing facility which increases the amount of any air pollutant emitted into the atmosphere by that facility or which results in the emission of any air pollutant into the atmosphere not previously emitted".

Having determined that the proposed change qualifies for a modification, a review of the definition of a modification under 60.14 was conducted to determine if the proposed burner replacement is a modification for the purposes of the NSPS.

> The proposed change is not one of the changes under 60.14(e) exempted from being a modification for the purposes of NSPS.

Paragraph (e) of 40 CFR 60.14 lists six (6) changes to an affected facility, process, or source that are not considered modifications under the New Source Performance Standards (NSPS, 40 CFR 60). These changes include:

Page 3 of 10

F017-7088-03118

- (1) maintenance, repair, and replacement which the Administrator (EPA) determines to be "routine" for a source category subject to the provisions of 60.14(c) and 60.15.
- (2) any increase in production rate of an existing affected facility if the increase is accomplished without a capital expenditure on the affected facility,
- (3) an increase in the hours of operation,
- (4) use of an approved alternative fuel,
- (5) the addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or replaced by a system that is less environmentally beneficial, and
- (6) any relocation or change in ownership of an existing facility.

Since there is a capital expenditure associated with the proposed change, the proposed change does not consist solely of an increase in the hours of operation, no alternative fuels are being used, no control devices are being replaced, there is no change in ownership or relocation of the dryer, and EPA has determined that the proposed change is not routine, the proposed change is not exempted from the requirements of 40 CFR 60, Subpart I, pursuant to the exemptions under 60.14(e).

c. No limit can be established to exempt the proposed change from being a modification.

Central Paving has proposed a fuel use limit that would reduce the emissions from the proposed 70 MMBtu/hr burner to levels that are equivalent to the emissions of the existing 59 MMBtu/hr burner, resulting in no increases emissions to the atmosphere. Limiting the emissions to levels that generate no increases in emissions to the atmosphere would make the proposed burner not a modification for the purposes of NSPS, which would result in 40 CFR 60, Subpart I not being applicable. However, the use of the fuel use limit would not actually limit the maximum capacity of the dryer/burner.

Pursuant to 60.14(a), a modification is defined as any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies.

Replacing the dryer burner with a higher capacity burner results in an increase in the unrestricted potential to emit. Thus, no limit shall be established.

2. The Proposed Change Meets the Criteria for Applicability Pursuant to 40 CFR 60.90(a) and (b):

40 CFR 60, Subpart I applies to any affected facilities at a hot mix asphalt plant that commenced construction or modification after June 11, 1973. Central Paving, Inc. operates a batch hot mix asphalt plant as defined in 60.91(a), the proposed change is occurring after June 11, 1973, and the proposed dryer burner replacement is determined to be a modification to an affected facility listed in 60.90(a), the dryer.

Thus, no limitations shall be applied, and no changes to the permit shall be made.

#### Page 4 of 10 F017-7088-03118

#### c. Comment 2:

Since NSPS would not be applicable, the 0.04 grain per dry standard cubic foot limitation in Condition D.1.1 and all other references to Subpart I should be removed.

#### Response 2:

Since it is determined that 40 CFR 60, Subpart I applies, no changes to the permit shall be made.

#### d. Comment 3:

Condition A.1 specifies Don Spence as the responsible official. This should be Robert Brandstatter.

#### Response 3:

The responsible official shall be changed as follows to reflect Robert Brandstatter as the responsible official.

#### A.1 General Information

The Permittee owns and operates a stationary batch mix hot asphalt plant

Responsible Official: Don Spence Robert Brandstatter

Source Address: 2403 S. County Road 150 E., Logansport, Indiana 46947

Mailing Address: P. O. Box 357, Logansport, Indiana 46947

SIC Code: 2951

County Location: Cass County

County Status: Unclassified or attainment for all criteria pollutants

Source Status: Minor Source, FESOP Program

Minor Source, PSD Program

#### e. Comment 4:

Conditions A.2, A.3, D.1.2, D1.3, D.1.5, D.1.10, and the unit descriptions of Section D.1 should be changed to reflect the most recent language.

#### Response 4:

The changes of First Significant Modification (017-9742-03118), issued on July 17, 1998, and First Significant Permit Revision 017-13667-03118, issued on March 15, 2001, were not incorporated into the most recent proposal. Thus, the following changes shall be made.

#### A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

- (a) one (1) asphalt dryer capable of processing 150 tons per hour of raw material, equipped with one (1) natural gas fired 70 million British thermal units per hour burner, using No. 2 distillate oil as back-up fuel;
- (b) one (1) set of three (3) vibrating screens for classifying dried aggregate;
- (c) one (1) mixer for mixing classified aggregate and liquid asphalt;
- (d) one (1) baghouse for controlling particulate matter (PM) emissions from the dryer and mixer, exhausting at one (1) stack (ID No. SV1); and
- (e) one (1) aggregate conveyor with a maximum capacity of 150 tons per hour; and
- (f) production of stockpile mix (cold mix) asphalt.

Page 5 of 10 F017-7088-03118

#### A.3 <u>Insignificant Activities</u>

This stationary source also includes the following insignificant activities, as defined in <del>326 IAC 2-7-1(20)</del> **326 IAC 2-7-1(21)**:

- (a) one (1) natural gas fired hot oil heater, with a maximum rated capacity of 2.115 million British thermal units per hour, using No. 2 distillate oil as back-up fuel;
- (b) four (4) hopper bottom aggregate storage bins, each with a capacity of 20 tons;
- (c) three (3) 10,000 gallon liquid asphalt storage tanks;
- (d) unpaved roads with public access; and
- (e) five (5) aggregate storage piles with a total storage capacity of 10,000 tons.

#### SECTION D.1 FACILITY OPERATION CONDITIONS

- (a) one (1) asphalt dryer capable of processing 150 tons per hour of raw material, equipped with one (1) natural gas fired 70 million British thermal units per hour burner, using No. 2 distillate oil as back-up fuel;
- (b) one (1) set of three (3) vibrating screens for classifying dried aggregate;
- (c) one (1) mixer for mixing classified aggregate and liquid asphalt;
- (d) one (1) baghouse for controlling particulate matter (PM) emissions from the dryer and mixer, exhausting at one (1) stack (ID No. SV1); and
- (e) one (1) aggregate conveyor with a maximum capacity of 150 tons per hour, and-
- (f) production of stockpile mix (cold mix) asphalt.

#### D.1.1 Particulate Matter Emissions

(a) PM:

The particulate matter (PM) emissions shall be limited as follows:

- (i) Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter emissions from the aggregate drying operation shall not exceed 8.2 pounds per hour.
- (ii) Pursuant to 40 CFR 60, Subpart I, Section 60.92, on and after the date on which the performance test required to be conducted by 60.8 is completed, the owner or operator shall not discharge into the atmosphere from the dryer/mixer, particulate matter containing in excess of 0.04 gr/dscf (0.02 lb PM/hr) or emissions that exhibit equal to or greater than 20% opacity.

#### (b) PM-10:

Pursuant to 326 IAC 2-8-4, emissions of particulate matter with diameter less an 10 microns (PM-10) from the aggregate mixing and drying operation shall not exceed 17.4 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

#### D.1.2 Sulfur Dioxide (SO<sub>9</sub>)

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 59.45 million British thermal units per hour burner for the aggregate dryer shall be limited to 0.5 pounds per million British thermal units heat input or a sulfur content of less than or equal to 0.49 percent when using No. 2 distillate oil.

Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction.

#### D.1.3 <u>Distillate Fuel Oil Usage</u>

The input of No. 2 distillate fuel oil to the 70 million British thermal units per hour burner for the aggregate dryer shall be limited, to 2,593,000 U.S. gallons per twelve (12) consecutive months. The total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months based on a maximum oil sulfur content of 0.49 percent. During the first twelve (12) months of operation under this permit, the input of No. 2 distillate fuel oil shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed 216,100 U.S. gallons per month. Therefore, the requirements of 326 IAC 2-7 will not apply.

#### D.1.2 Volatile Organic Compound (VOC)

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), the use of cutback asphalt or asphalt emulsion shall not contain more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

- (a) Penetrating Prime Coating
- (b) Stockpile Storage
- (c) Application during the months of November, December, January, February and March.

#### D.1.3 Cold-Mix (Stockpile Mix) Asphalt Usage

The VOC emissions from the production of cold mix (stockpile mix) asphalt shall be limited to 90.57 tons per twelve (12) consecutive Month period, rolled on a monthly basis. This is equivalent to 60,990 tons of cold mix (stockpile mix) asphalt per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) will not apply.

#### Testing Requirements [326 IAC 2-8-4(3)]

#### D.1.4 Particulate Matter

During the period between 36 and 42 months after issuance of this permit, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10.

If the source modifies the hot mix asphalt operation such that 40 CFR 60, Subpart I becomes applicable, the owner or operator shall, except as provided in 60.8(b), conduct the performance tests required in Section 60.93 (Section 60.8) utilizing the reference methods and procedures in Appendix A of Part 60 or the following methods:

(a) The owner or operator shall demonstrate compliance with the 0.04 gr/dscf particulate matter standard of Condition D.1.1(b)(ii) utilizing Method 5. The sampling time and sample volume for each run shall be at least 60 minutes and 31.8 dscf.

(b) The owner or operator shall demonstrate compliance with the opacity limitation of Condition D.1.1(b)(ii) utilizing Method 9 and the procedures of 60.11.

The results of any existing tests that have been conducted may be used to demonstrate compliance with the standards of Condition D.1.1(b)(ii) in lieu of performance testing provided the Office of Air Quality determines that said results satisfy the testing requirements.

#### D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

During the period between 36 and 42 months after issuance of this permit, in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, or existing test results, as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C-Performance Testing.

#### D.1.5 Sulfur Dioxide Emissions and Sulfur Content

The Permittee shall test for:

- (a) Sulfur content of oil burned as fuel by the 70 million British thermal units per hour burner for the aggregate dryer, using 40 CFR Part 60, Appendix A, Method 19 for each load of oil delivered: or
- (b) Sulfur dioxide emissions from the 70 million British thermal units per hour burner for the aggregate dryer, using 40 CFR Part 60, Appendix A, Method 6 each time a test to comply with Condition D.1.4 is performed.

The oil supplier certificates or tests conducted by the oil supplier may be used to replace the sulfur content tests.

#### Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

#### D.1.65 Daily Visible Emission Notations

Daily visible emission notations of the conveying, transferring, screening, aggregate storage piles, unpaved roads, and the mixing and drying operation stack exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

#### D.1.76 Pressure Drop Readings

The Permittee shall take readings of the total static pressure drop across the baghouse controlling the mixing and drying operation, at least once a day when the mixing and drying process is in operation. Unless operated under conditions for which the Preventive

Page 8 of 10

F017-7088-03118

Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Condition C.12 -Pressure Gauge Specifications, be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.1.87 Preventive Maintenance [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this source.

#### D.1.9 Preventive Inspections

The following inspections shall be performed when the dryer is operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

#### Daily:

- (a) Pump leaks and unusual noise;
- (b) Valves position and leaks;
- (c) Piping leaks;
- (d) Scrubber body leaks;
- (e) Pressure gauge change; and
- (f) Pressure gauge / ammeter change in pressure drop.

#### Weekly:

- (a) Spray bars plugged, worn, or missing nozzles;
- (b) Pipes and manifolds plugging and leaks;
- (c) Pressure gauge check accuracy;
- (d) Pumps and valves wear and valve operation; and
- (e) Scrubber body build-up, abrasion, corrosion.

#### Monthly:

- (a) Instrument air; and
- (b) Valve operation.

#### D.1.10 Fuel Oil Sampling and Analysis

Oil samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. The Permittee shall analyze the oil sample to determine the sulfur content of the oil in accordance with 326 IAC 3-3-4. If a partially empty fuel tank is refilled, a new sample and analysis is required upon filling. Vendor analysis of the fuel oil is acceptable, in lieu of the above, if accompanied by a certification.

#### Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

#### D.1.<del>118</del> Operational Parameters

The Permittee shall maintain a daily record for the **baghouse** <del>venturi scrubber</del> controlling particulate matter emissions from asphalt mixing and aggregate drying operations of the following values:

- (a) Inlet and outlet differential static pressure;
- (b) Scrubbing liquid flow rate;
- (eb) Visible observations;
- (dc) Checklist with dates and initials for each preventive action performed; and
- (ed) Records of corrective actions.

#### D.1.12 <u>Distillate Fuel Oil Usage</u>

- (a) Complete and sufficient records shall be kept to establish compliance with the No. 2 fuel oil usage limits and sulfur dioxide emissions limit established in this permit and contain a minimum of the following:
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Monthly usage of No. 2 distillate fuel oil;
  - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and
  - (4) Fuel supplier certifications.
- (b) The supplier certification shall contain, as a minimum, the following:
  - (1) The name of the oil supplier; and
  - (2) A statement from the oil supplier that certifies the sulfur content and heat content of the fuel oil.

#### D.1.9 Record Keeping Requirements

The Permittee shall maintain records at the source of the amount of cold-mix (stockpile mix) asphalt concrete produced each month. The records shall be complete and sufficient to establish compliance with the Volatile Organic Compound (VOC) usage limit established in Condition D.1.3 of this permit. The records shall contain a minimum of the following:

- (a) Cold-mix (stockpile mix) asphalt produced in current month;
- (b) Cold-mix (stockpile mix) asphalt produced last twelve (12) months;
- (c) Type of asphalt used; and
- (d) Percent fuel oil in asphalt.

Third Significant Permit Revision 017-13991-03118 Revised By: SDF

Central Paving, Inc. Logansport, Indiana Permit Reviewer: SCP/EVP Page 10 of 10 F017-7088-03118

The records shall be maintained for a minimum of 36 months and made available upon request of the Office of Air Quality (OAQ).

#### D.1.130 Quarterly Reporting

A quarterly summary to document compliance with operation condition numbers D.1.2 and D.1.3 shall be submitted, to the address listed in Section C.18 - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported.

## Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

#### **Source Background and Description**

Source Name: Central Paving, Inc.

Source Location: 2403 S. County Rd. 150 E., Logansport, Indiana 46947

County: Cass SIC Code: 2951

Operation Permit No.: F 017-7088-03118
Operation Permit Issuance Date: July 10, 1997
Significant Permit Revision No.: F 017-13991-03118

Permit Reviewer: SDF

The Office of Air Quality (OAQ) has reviewed a significant permit revision application from Central Paving, Inc. relating to the operation of their existing batch hot mix asphalt plant.

#### **History**

On February 28, 2001, Central Paving Inc. submitted an application to replace an existing 59.45 MMBtu/hr natural gas fired dryer burner with a 70 MMBtu/hr natural gas fired dryer burner.

In addition, Central Paving has also requested the replacement of the existing venturi scrubber of the asphalt drying and mixing operation, with an equivalent baghouse.

The maximum throughput for the plant is 150 tons per hour. Central Paving has stated that they are only replacing the existing 59.45 MMBtu/hr dryer burner with a new 70 MMBtu/hr dryer burner because the proposed burner is the closest capacity replacement burner that the applicant could find and that there will not be an increase in the production rate. Thus, the only increases in emissions are due to the new proposed burner.

Since replacing the dryer burner will generate an increase in NOx emissions of 31.00 tons/yr, the dryer replacement qualifies for a significant permit revision under 326 IAC 2-8-11.1(f)(1)(E) which states that modifications to a FESOP that have potential to emit of NOx greater than 25 tons per year, require a significant permit revision.

The proposed replacement of the venturi scrubber with a baghouse will not generate an increase in potential to emit.

#### **Existing Approvals**

The source was issued Federally Enforceable State Operating Permit (FESOP) (017-7088-03118) on July 10, 1997. The source has been operating under this permit and the following approvals including, but not limited to, the following:

First Significant Permit Revision:
 Second Significant Permit Revision:
 017-9742-03118
 Issued: 7-17-98
 Issued: 3-15-01

#### **Enforcement Issue**

There are no enforcement actions pending.

#### Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application.

#### **Emission Calculations**

#### UNRESTRICTED POTENTIAL TO EMIT DUE TO THE MODIFICATION:

The emissions generated by the proposed revision are the combustion emissions created due to the installation of a new dryer burner. The capacity of the proposed dryer burner is 70 MMBtu/hr. The fuel combusted by the dryer burner is natural gas.

The following calculations determine the unrestricted PTE due to the proposed burner based on natural gas combustion, a maximum capacity of 70 MMBtu/hr, emissions before controls, AP-42 emission factors (Tables 1.4-1, 1.4-2, 1.4-3), and 8760 hours/yr:

70 MMBtu/hr \* 8760 hr/yr \* 1 E6 Btu/MMBtu \* 1/1000 cf/Btu \* 1/1E6 MMcf/cf \* Ef lb poll/MMcf \* 1/2000 ton poll/lb poll = ton poll/yr

|        | PM<br>1.9 lb/MMcf | PM10<br>7.6 lb/MMcf | SO2<br>0.6 lb/MMcf | NOx<br>100 lb/MMcf | VOC<br>5.5 lb/MMcf | CO<br>84 lb/MMcf |
|--------|-------------------|---------------------|--------------------|--------------------|--------------------|------------------|
| ton/yr | 0.59              | 2.36                | 0.19               | 31.00              | 1.71               | 26.04            |

The emissions are uncontrolled.

#### **Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls due to the revision based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Pollutant       | Potential To Emit (tons/year) |  |  |
|-----------------|-------------------------------|--|--|
| PM              | 0.59                          |  |  |
| PM-10           | 2.36                          |  |  |
| SO <sub>2</sub> | 0.19                          |  |  |
| VOC             | 1.71                          |  |  |
| СО              | 26.04                         |  |  |
| NO <sub>x</sub> | 31.00                         |  |  |

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

#### **Justification for Revision**

The FESOP is being revised through a Significant Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(f)(1)(E) which states that modifications to a FESOP that have potential to emit of NOx greater than 25 tons per year, require a significant permit revision.

#### **County Attainment Status**

The source is located in Cass County.

| Pollutant        | Status                       |  |  |
|------------------|------------------------------|--|--|
| PM <sub>10</sub> | attainment or unclassifiable |  |  |
| SO <sub>2</sub>  | attainment or unclassifiable |  |  |
| NO <sub>2</sub>  | attainment or unclassifiable |  |  |
| Ozone            | attainment or unclassifiable |  |  |
| СО               | attainment or unclassifiable |  |  |
| Lead             | attainment or unclassifiable |  |  |

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and  $NO_X$  emissions are considered when evaluating the rule applicability relating to the ozone standards. Cass County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2 and 40 CFR 52.21.
- (b) Cass County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

#### **Source Status**

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

The source changed combustion from No.2 as a back-up fuel to natural gas in the First Significant Modification (017-9742-03118), issued on July 17, 1998. The adjusted existing source emissions were not determined in the first significant modification.

Thus, the adjusted existing source emissions, based on natural gas combustion of the hot oil heater and dryer burner are as follows. The estimated dryer/mixer, conveying/handling, unpaved roads, and storage emissions, after controls, are not affected and are the same as proposed in the original FESOP (F 017-7088-03118), issued on July 10, 1997.

#### **Hot Oil Heater:**

The following calculations determine the unrestricted PTE due to the hot oil heater based on natural gas combustion, a maximum capacity of 2.115 MMBtu/hr, emissions before controls, AP-42 emission factors (Tables 1.4-1, 1.4-2, 1.4-3), and 8760 hours/yr:

2.115 MMBtu/hr \* 8760 hr/yr \* 1 E6 Btu/MMBtu \* 1/1000 cf/Btu \* 1/1E6 MMcf/cf \* Ef Ib poll/MMcf \* 1/2000 ton poll/Ib poll = ton poll/yr

|        | PM<br>12 lb/MMcf | PM10<br>12 lb/MMcf | SO2<br>0.6 lb/MMcf | NOx<br>100 lb/MMcf | VOC<br>5.3 lb/MMcf | CO<br>21 lb/MMcf |
|--------|------------------|--------------------|--------------------|--------------------|--------------------|------------------|
| ton/yr | 0.11             | 0.11               | 0.01               | 0.93               | 0.05               | 0.19             |

#### **Dryer Burner:**

The following calculations determine the unrestricted PTE due to the proposed burner based on natural gas combustion, a maximum capacity of 59.45 MMBtu/hr, emissions before controls, AP-42 emission factors (Tables 1.4-1, 1.4-2, 1.4-3), and 8760 hours/yr:

59.45 MMBtu/hr \* 8760 hr/yr \* 1 E6 Btu/MMBtu \* 1/1000 cf/Btu \* 1/1E6 MMcf/cf \* Ef lb poll/MMcf \* 1/2000 ton poll/lb poll = ton poll/yr

The PM/PM10 emissions are controlled with an overall efficiency of 99.85%.

PM/PM10 emissions after controls = PM/PM10 emissions before controls \* (1 - 0.0015)

|        | PM           | PM10         | SO2         | NOx         | VOC         | CO         |
|--------|--------------|--------------|-------------|-------------|-------------|------------|
|        | 13.7 lb/MMcf | 13.7 lb/MMcf | 0.6 lb/MMcf | 140 lb/MMcf | 2.8 lb/MMcf | 35 lb/MMcf |
| ton/yr | 0.01         | 0.01         | 0.16        | 36.45       | 0.72        | 9.11       |

A summary of the adjusted existing source emissions are as follows:

|                    | PM<br>tons/yr | PM10<br>tons/yr | SO2<br>tons/yr | NOx<br>tons/yr | VOC<br>tons/yr | CO<br>tons/yr |
|--------------------|---------------|-----------------|----------------|----------------|----------------|---------------|
| Oil Heater         | 0.11          | 0.11            | 0.01           | 0.93           | 0.05           | 0.19          |
| Dryer Burner       | 0.01          | 0.01            | 0.01 0.16      |                | 0.72           | 9.11          |
| Drying/Mixing      | 31.54         | 4.43            | -              |                |                | -             |
| Conveying/Handling | 0.78          | 0.37            | -              | -              | -              | -             |
| Unpaved Roads      | 63.33         | 22.17           | -              | -              | -              | -             |
| Storage            | 0.02          | 0.01            | -              |                |                | -             |
| Total              | 95.79         | 27.10           | 0.17           | 37.38          | 0.77           | 9.30          |

The HAP emissions remain unchanged.

| Pollutant                 | Emissions (tons/year) |  |  |
|---------------------------|-----------------------|--|--|
| Acetaldehyde              | 0.420                 |  |  |
| Benzene                   | 0.230                 |  |  |
| Ethylbenzene              | 2.168                 |  |  |
| Formaldehyde              | 0.565                 |  |  |
| Quinone                   | 0.177                 |  |  |
| Toluene                   | 1.183                 |  |  |
| Total Polycyclic Organics | 0.083                 |  |  |
| Xylene                    | 2.825                 |  |  |
| Total                     | 7.651                 |  |  |

- (a) This existing source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.
- (b) This existing source is not a Title V major stationary source because no attainment regulated pollutant is emitted at a rate of 100 tons per year or more, no single regulated hazardous air pollutant (HAP) is emitted at a rate of 10 tons per year or more, and no regulated combined HAPs are emitted at a rate of 25 tons per year or more.

#### Potential to Emit of Source After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this FESOP revision.

|                                | Potential to Emit<br>(tons/year) |                  |                 |      |       |                 |      |
|--------------------------------|----------------------------------|------------------|-----------------|------|-------|-----------------|------|
| Process/facility               | PM                               | PM <sub>10</sub> | SO <sub>2</sub> | VOC  | СО    | NO <sub>x</sub> | HAPs |
| Existing Source PTE            | 95.79                            | 27.10            | 0.17            | 0.77 | 9.30  | 37.38           | 7.65 |
| Modification PTE               | 0.59                             | 2.36             | 0.19            | 1.71 | 26.04 | 31.00           | neg. |
| Source After Proposed Revision | 96.38                            | 29.46            | 0.36            | 2.48 | 35.34 | 68.38           | 7.65 |

| Part 70 Major Source Threshold |     |     |     |     |     |     | 10 ind. |
|--------------------------------|-----|-----|-----|-----|-----|-----|---------|
|                                | -   | 100 | 100 | 100 | 100 | 100 | 25 tot. |
| PSD Threshold Level            | 250 | 250 | 250 | 100 | 250 | 250 | -       |

- (a) The maximum production rate shall remain at 150 tons per hour. Thus, there will be no increase in the source permitted emission rate.
- (b) This revision to an existing minor stationary source is not major because the emissions after the modification are less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.
- (c) Since the potential to emit from the entire source of all criteria pollutant emissions are less than 250 tons per year, the source is a minor source pursuant to 326 IAC 2-2, PSD.
- (d) This revision to the existing FESOP will not change the status of the stationary source because the emissions from the entire source will still be limited to less than the Part 70 major source thresholds.

#### **Federal Rule Applicability**

#### **New Source Performance Standards (NSPS):**

#### 40 CFR 60, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities:

The proposed replacement of the dryer burner triggers New Source Performance Standard (NSPS), 40 CFR 60, Subpart I, "Standards of Performance for Hot Mix Asphalt Facilities".

Pursuant to 40 CFR 60, Subpart I, Section 60.90(a) and (b), a modification to the dryer that commences after June 11, 1973, is subject to the requirements of this Subpart.

Pursuant to 40 CFR 60, Subpart A, Section 60.14(a), a modification for the purposes of New Source Performance Standards (NSPS) is defined as any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies.

Pursuant to 40 CFR 60, Subpart A, Section 60.14(b), emission rate is defined as kg/hr (lb/hr).

Replacing the existing 59.45 MMBtu/hr dryer burner with a 70 MMBtu/hr dryer burner generates an increase in the hourly emission rate. Thus, it is determined that the replacement of the dryer burner is a modification that is subject to New Source Performance Standard (40 CFR 60, Subpart I).

#### 60.92: Standard for Particulate Matter:

Pursuant to 40 CFR 60, Subpart I, Section 60.92, on and after the date on which the performance test required to be conducted by 60.8 is completed, the owner or operator shall not discharge into the atmosphere from the dryer/mixer, particulate matter containing in excess of 0.04 gr/dscf or emissions that exhibit equal to or greater than 20% opacity.

#### 60.93: Test Methods and Procedures:

Pursuant to 40 CFR 60, Subpart I, Section 60.93, the owner or operator shall conduct the required performance tests utilizing the reference methods and procedures in Appendix A of Part 60 or the following methods, except as provided in 60.8(b).

The owner or operator shall demonstrate compliance with the 0.04 gr/dscf particulate matter standard utilizing Method 5. The sampling time and sample volume for each run shall be at least 60 minutes and 31.8 dscf.

The owner or operator shall demonstrate compliance with the opacity limitation utilizing Method 9 and the procedures of 60.11.

The results of any existing tests that have been conducted may be used to demonstrate compliance with the standards in lieu of performance testing provided the Office of Air Quality determines that said results satisfy the testing requirements.

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP):**

There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) that are applicable due to the proposed revision.

#### State Rule Applicability

#### **Entire Source:**

There are no entire source state rules that become applicable due to this proposed revision because the preventive maintenance plan (326 IAC 1-6-3), opacity limitations (326 IAC 5-1), and fugitive dust limitations (326 IAC 6-4) already apply and the proposed revision does not affect the requirements of these rules. The emission reporting requirements (326 IAC 2-6) are still not applicable because the emissions of all criteria air pollutants after the proposed revision will still be less than 100 tons per year.

#### **Individual Facilities:**

There are no individual facility state rules that become applicable due to this proposed revision. 326 IAC 6-3 and 326 IAC 7 already apply and the proposed revision does not affect the requirements of these rules.

326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving) still applies because the source still produces stockpile mix (cold mix). 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) still does not apply because although there are no other Article 8 rules that apply, the source VOC emissions after the proposed revision (1.71 tons/yr) are still less than the applicable level of 25 tons/yr.

#### **Compliance Requirements**

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Since the baghouse has operating parameters that are different from those associated with the venturi scrubber, the compliance monitoring requirements shall be changed as follows.

Compliance monitoring conditions D.1.5, and D.1.7 (daily visible emission notations and preventive maintenance) shall remain as stated in the existing FESOP because these conditions apply to the replacement baghouse.

Condition D.1.6 shall be revised to reflect baghouse parameters rather than the existing scrubber parameters, Condition D.1.9 shall be removed because this requirement only applies to wet scrubbers. All other conditions shall be re-numbered because existing Condition D.1.9 is removed.

#### **Proposed Changes**

The permit language is changed to read as follows (deleted language appears as strikeouts, new language appears in **bold**):

Condition A.2 shall be revised to include dryer capacity and reflect the replacement of the venturi scrubber with a baghouse.

#### A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

- (a) one (1) asphalt dryer capable of processing 150 tons per hour of raw material, equipped with one
   (1) natural gas fired 59.45 70 million British thermal units per hour burner, using No. 2 distillate oil as back-up fuel;
- (b) one (1) set of three (3) vibrating screens for classifying dried aggregate:
- (c) one (1) mixer for mixing classified aggregate and liquid asphalt;
- (d) one (1) cyclone/venturi scrubber system **baghouse** for controlling particulate matter (PM) emissions from the dryer and mixer, exhausting at one (1) stack (ID No. SV1); and
- (e) one (1) aggregate conveyor with a maximum capacity of 150 tons per hour.

The facility description of Section D.1 shall be revised to include dryer capacity and reflect the replacement of the venturi scrubber with a baghouse.

- (a) one (1) asphalt dryer capable of processing 150 tons per hour of raw material, equipped with one
   (1) natural gas fired 59.45 70 million British thermal units per hour burner, using No. 2 distillate oil as back-up fuel;
- (b) one (1) set of three (3) vibrating screens for classifying dried aggregate;
- (c) one (1) mixer for mixing classified aggregate and liquid asphalt;
- (d) one (1) eyclone/venturi scrubber system baghouse for controlling particulate matter (PM) emissions from the dryer and mixer, exhausting at one (1) stack (ID No. SV1); and
- (e) one (1) aggregate conveyor with a maximum capacity of 150 tons per hour.

Condition D.1.1 shall be revised to include the NSPS PM and opacity requirements.

#### D.1.1 Particulate Matter Emissions

(a) PM:

#### The particulate matter (PM) emissions shall be limited as follows:

- (i) Pursuant to 326 IAC 6-3 (Process Operations) and 326 IAC 12 (40 CFR Part 60.90, Subpart I), the particulate matter emissions from the aggregate drying operation shall not exceed 8.2 pounds per hour and 0.04 grain per dry standard cubic foot (gr/dscf). This limit also satisfies the requirements of 326 IAC 2-2.
- (ii) Pursuant to 40 CFR 60, Subpart I, Section 60.92, on and after the date on which the performance test required to be conducted by 60.8 is completed, the owner or operator shall not discharge into the atmosphere from the dryer/mixer, particulate matter containing in excess of 0.04 gr/dscf or emissions that exhibit equal to or greater than 20% opacity.
- **(b)** PM-10:

Pursuant to 326 IAC 2-8-4, emission of particulate matter with diameter less than 10 microns (PM-10) from the aggregate mixing and drying operation shall not exceed 17.4 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

Condition D.1.4 shall be revised to require performance tests as required by 40 CFR 60, Subpart I.

#### D.1.4 Particulate Matter

During the period between 36 and 42 months after issuance of this permit, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10.

If the source modifies the hot mix asphalt operation such that 40 CFR 60, Subpart I becomes applicable, the owner or operator shall, except as provided in 60.8(b), conduct the performance tests required in Section 60.93 (Section 60.8) utilizing the reference methods and procedures in Appendix A of Part 60 or the following methods:

(a) The owner or operator shall demonstrate compliance with the 0.04 gr/dscf particulate matter standard of Condition D.1.1(b)(ii) utilizing Method 5. The sampling time and sample volume for each run shall be at least 60 minutes and 31.8 dscf.

(b) The owner or operator shall demonstrate compliance with the opacity limitation of Condition D.1.1(b)(ii) utilizing Method 9 and the procedures of 60.11.

The results of any existing tests that have been conducted may be used to demonstrate compliance with the standards of Condition D.1.1(b)(ii) in lieu of performance testing provided the Office of Air Quality determines that said results satisfy the testing requirements.

Condition D.1.6 shall be revised to reflect baghouse parameters rather than the existing scrubber parameters.

#### D.1.6 Pressure Drop and Water Flow Rate Readings

The Permittee shall take pressure drop readings across the venturi scrubber and scrubbing water flow rates, at least once a day when the mixing and drying process is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the venturi scrubber shall be maintained within the range of 4 and 8 inches of water and the scrubbing water flow rate shall be maintained within the range of 30 to 50 gallons per minute. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading or flow rate is outside of the above mentioned range for any one reading.

The Permittee shall take readings of the total static pressure drop across the baghouse controlling the mixing and drying operation, at least once a day when the mixing and drying process is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Condition C.12 - Pressure Gauge Specifications, be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Condition D.1.9 shall be removed because this requirement only applies to wet scrubbers.

#### D.1.9 Wet Scrubber Failure Detection

In the event that wet scrubber failure has been observed:

- (a) The asphalt mixing and aggregate drying operation will be shut down immediately until the units have been repaired.
- (b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

All other conditions after Condition D.1.10 shall be re-numbered accordingly.

#### Conclusion

The operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP F 017-13991-03118.